Running head: COMPANY OFFICER CONTINUING EDUCATION PROGRAM

The Santa Clara County Fire Department Company Officer

Continuing Education Program: Is It Meeting Expectations?

Steve Prziborowski

Santa Clara County Fire Department, Los Gatos, California

•

CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of
others is set forth, quotation marks so indicate, and that appropriate credit is given where I hav
used the language, ideas, expressions, or writings of another.

Abstract

The Santa Clara County Fire Department (SCCFD) company officer continuing education program was developed in 2006, and a formal evaluation had vet to be completed, to determine whether the program was meeting the expectations of the personnel. The purpose of this research was to describe employee satisfaction with the current SCCFD company officer continuing education program. Descriptive research, including a literature review and an internal survey, was used to determine the importance of continuing education programs for company officers, to determine the level of satisfaction with the current SCCFD company officer continuing education program, to identify curriculum needs for future class offerings, to identify how much the SCCFD is currently spending to provide the company officer continuing education program, and to determine if the current method of instructional delivery is meeting the needs of SCCFD personnel. The results showed that the SCCFD company officer continuing education program is well received by SCCFD personnel, that the program is allowing the SCCFD company officers to be more prepared to do their job, and that the curriculum being offered has been relevant. Recommendations were made to assist the SCCFD in enhancing the company officer continuing education program, and included creating a career development committee to oversee future class offerings, giving suggestions for topics to be presented at future sessions, and instructional delivery methods to be considered to ensure there is effective student-instructor interaction and more importantly, retention and proper application of the material presented.

Table of Contents

Abstract	
Introduction	
Background and Significance	8
Literature Review	14
Procedures	36
Results	39
Discussion	49
Recommendations	56
References	60
Appendix A: Internal SCCFD Survey	62
Appendix B: Internal SCCFD Survey Results	65

Company Officer Continuing Education 5

List of Tables

Table 1: Refresher training for California Fire Service personnel	18
Table 2: Summary of Responses to Survey Items 1-3	41
Table 3: Summary of Responses to Survey Item 6	43
Table 4: Summary of Responses to Survey Item 4	47

Introduction

Initial and on-going training and education in any line of work or profession is critical, not only for career development, but for ensuring personnel are adequately and appropriately trained, educated, and prepared to handle the various challenges of the position they are presently functioning in, or will be functioning in, sometime in the future.

While not everyone who begins employment will ever want to promote, take on lateral assignments, or even have the necessary skills set to promote or take on lateral assignments, many companies and governmental agencies (including the fire service) commonly select personnel to fill promoted ranks and lateral assignments from within the organization. Even if an individual chooses not to promote or take on a lateral assignment, some form of continuing education can be argued as a necessary part of remaining up-to-date with current industry trends and techniques, not to mention a validation of sorts to ensure they are still performing at a certain level of competency.

In 2006, after a change in leadership at the Santa Clara County Fire Department (SCCFD), one of the first projects interim Fire Chief Ken Waldvogel assigned a senior staff member, was to create a company officer continuing education program. Chief Waldvogel (who was later officially appointed as Fire Chief) recognized a critical need within the SCCFD, particularly the need to provide some form of annual refresher training to the first-line supervisors of the fire companies, the fire captain (also known as a company officer). The company officer is the individual that supervises fire station personnel, and may be the only point of contact someone has with the fire department when they call 9-1-1 in time of need. The leadership and management skills demonstrated (or not demonstrated) by a company officer can make or break the success and public relations of a fire department.

Since the creation of the SCCFD company officer continuing education program in 2006, there has been three annual training sessions provided to SCCFD company officers: one in 2007, one in 2008 and one in 2009. These training sessions were created based on input from current company officers and chief officers, to ensure that the most critical subjects were being addressed first. A significant amount of time, energy and money has been invested in the SCCFD company officer continuing education program, and the question exists whether the program meets the needs and expectations of the company officers.

The problem is that since the implementation of the SCCFD company officer continuing education program, there has not been any formal evaluation to determine whether the program and curriculum is meeting the needs and expectations of the company officers. The purpose of this research was to describe employee satisfaction with the current SCCFD company officer continuing education program. Descriptive research, including a literature review and an internal survey, was used to answer the following research questions:

- 1. What is the level of satisfaction for the SCCFD company officer continuing education program?
- 2. What subject areas do SCCFD company officers feel should be included in future continuing education programs?
- 3. Of the annual training sessions hosted by the department in 2007, 2008 and 2009, which session provided the most valuable curriculum to assist company officers in doing their job?
- 4. How much does the SCCFD company officer continuing education program cost the department annually?

5. What are alternative methods to providing continuing education besides the classroom setting?

Background and Significance

When someone enters the fire service as a firefighter, they are typically put through some form of training that may last anywhere from one week to six months. This training is commonly in the form of a formal recruit academy modeled after the military, with a combination of lecture and hands-on training, typically lasting Monday through Friday, eight hours a day, and comprised of a very rigid, structured schedule. This schedule typically starts or ends with some form of physical fitness and continues with a battery of training and education in the majority of subjects the entry-level firefighter will be faced with in their new position.

When the entry-level firefighter graduates the recruit academy, they are then placed at a fire station or at various fire stations for a time frame of anywhere from 6 months to 18 months. This time frame is generally known as the probationary period; the probationary firefighter is now a functioning member of typically a three or four person company, expected to perform as a safe beginner, under the direction of a first-line supervisor, known as a company officer. This probationary period is intended to be a time where the newly hired individual can actually be evaluated under on-the-job conditions, and continue to build upon the knowledge, skills and abilities they learned in the recruit academy.

During the probationary period, the employee will usually be provided a sign-off manual that will require them to get numerous tasks signed off by an experienced firefighter, to demonstrate some form of competency, of the knowledge, skills and abilities they have been taught or at least exposed to, in the recruit academy and while on probation. For some fire departments across the country, this probationary period may be the last form of structured

continuing education that a fire service professional will be required to complete that is related to actual firefighting. Firefighters who also perform Emergency Medical Service (EMS) related duties such as being certified as an Emergency Medical Technician (EMT) or a licensed as paramedic will also most likely be performing some form of annual refresher training to keep their medical credentials up-to-date, which may be a job requirement or at least a requirement of their state or local EMS agency.

Even if not required, many fire service professionals will take it upon themselves to ensure they have some form of continuing education, for a variety of reasons: they have aspirations to promote, they have an interest in special lateral assignments that may require them to have certain certifications or qualifications just to apply for an assignment, or they may just want to keep their knowledge, skills and abilities up-to-date and be the best they can be.

Santa Clara County, one of 58 counties in the State of California, is located in Northern California, approximately one hour south of the City of San Francisco and in the area known as the Silicon Valley, named because of the area being the birthplace of numerous computer and "high-tech" related businesses such as Apple Computer, Hewlett Packard, Intel and Sun Microsystems. There are a total of 15 incorporated cities within the County of Santa Clara, and the SCCFD currently provides fire protection and life safety services to 8 of those cities, Campbell, Cupertino, Los Altos, Los Altos Hills, Los Gatos, Monte Sereno, Morgan Hill, and Saratoga, in addition to unincorporated areas of the county.

The SCCFD provides emergency response services out of 17 fire stations, employing over 300 personnel, including a minimum of 71 personnel on duty per day at the fire stations, augmented by up to 50 volunteer firefighters. SCCFD personnel are responsible for staffing 21 primary fire companies and four command vehicles strategically located within the department's

jurisdictional boundaries. The SCCFD Fire Chief is directly supervised by the Santa Clara County Board of Supervisors, acting as the SCCFD Board of Directors, responsible for direction and oversight. The SCCFD was formed under the California Health and Safety Code and is a special fire protection district, receiving funding primarily through contracts for fire protection services and property taxes. The SCCFD provides services to approximately 232,000 people within 140 square miles, with personnel working under one of five major department divisions: fire prevention, operations, training, support services, or administrative services.

The SCCFD was initially known, and is still legally known, as the Santa Clara County Central Fire Protection District when it was formed on January 21, 1947. Over time, the SCCFD has grown from 5 fire stations to the current 17 fire stations, through various consolidations and contracts for service. In 1997, the district adopted the name SCCFD to more accurately reflect the areas and communities being served, to reduce confusion with another similarly sounding fire department in an adjacent county, and to provide a more regionally sounding name that matched the vision of being a regional provider of fire protection services (SCCFD, 2004).

The Santa Clara County Fire Department Business Plan (SCCFD, 2004) addresses the mission statement and vision of the SCCFD:

The Santa Clara County Fire Department exists to protect the lives, property, and environment within the communities served from fires, disasters, and emergency incidents through education, prevention, and emergency response. The Department promotes a regional approach to fire protection services. (p. i)

There are a total of 72 fire captains (also known as company officers) full time equivalent positions in the SCCFD, filling either 56-hour suppression positions at the fire stations or 40-hour administrative positions at the department headquarters. A fire captain is assigned to each

of the 21 SCCFD primary apparatus (either an engine, truck, rescue or hazardous materials company), and is the first-line supervisor of either two or three assigned personnel at the firefighter/engineer rank, one of whom is a licensed paramedic, the other(s) being trained to the EMT level. A SCCFD fire captain is responsible for managing the daily activities of a fire company to ensure that the needs of the department and the expectations of the communities served are met.

The company officer is probably the most critical rank in the fire service and in the SCCFD because of the role they play in overseeing the fire company and a fire station. When someone calls 9-1-1 to request the services of the fire department, the closest fire company or companies will be dispatched to attempt to mitigate the problem and provide some form of resolution to the customer in need of assistance. While all SCCFD personnel provide an integral service to support the district's mission statement, the fire captain will have the opportunity to provide the most impact to the level of service provided by the district.

The challenges faced by the typical fire captain or company officer (regardless of whether they work for the SCCFD or another jurisdiction) are never-ending, especially in today's litigious society, and where more and more governmental officials are being held accountable and responsible for their actions and non-actions. What used to be a primary blue collar job is rapidly turning into a white collar job due to the complexity of the duties and responsibilities of the position, not to mention the professionalism expected by the public, and the level of required documentation.

Before the creation of the SCCFD company officer continuing education program, except for the annually required EMS continuing education requirements of the California State EMS Agency and the Santa Clara County EMS Agency, there had been no required continuing

education requirements for a company officer working for the SCCFD. While the Insurance Services Office (ISO), the Occupational Health and Safety Administration (OSHA) and the National Fire Protection Association (NFPA) may have certain subject areas of training that are mandated or suggested to occur on an as needed basis, an annual basis, or some other regular time frame, there is no hard and fast standard of continuing education for a fire captain specifically relating to fire officer related curriculum, especially to the management, supervision, and leadership roles and responsibilities (Schoonover and Dowdle, 2006).

This research project was chosen because of its direct relation to the course goal of the third-year course of the Executive Fire Officer Program of the Executive Analysis of Fire Service Operations in Emergency Management: "To prepare senior fire officers in the administrative functions necessary to manage the operational component of a fire department effectively" (U.S. Department of Homeland Security, 2009, p. 1-3).

The company officer of today is either the chief officer of tomorrow or the senior fire officer of tomorrow. The typical company officer working for the SCCFD may find themselves functioning as the senior fire officer, for a variety of reasons, until another senior fire officer is able to relieve them. The SCCFD, like many other fire departments across the country, are expecting large numbers of retirements in the senior fire officer ranks (either company officer or chief officer), and the pool of candidates to pick from is stepping up to the plate with much less fire ground experience to offer and possibly less life experience as well.

Because of the above reasons, it is more important than ever to provide some form of ongoing / continuing education to SCCFD company officers to ensure their knowledge, skills and abilities relating to their current position are being kept up-to-date. Most fire departments do very little in the way of training and education for their aspiring company officers, expecting

those who really want the promotion to have properly prepared themselves for the promotional examination and the position they aspire to. Upon promotion to company officer, the typical company officer has had the choice of either waiting for the department to offer them some form of continuing education, or being proactive and getting the continuing education on their own. Unfortunately it seems to be too easy to just wait for the department to offer the continuing education, which may or may not ever arrive, due to the a number of reasons such as apathy, lack of time on or off duty to attend classes, or just lack of funding available (from the department or the individual) to attend classes.

This research relates to two of the U.S. Fire Administration Operational Objectives: 3—
"Reduce the loss of life from fire of firefighters"; and 5—"Respond appropriately in a timely
manner to emerging issues" (U.S. Department of Homeland Security, 2008a, p. II-2).

It is not uncommon to have firefighters promote to the rank of company officer with minimal fire ground experience to base their future decisions upon, which may have an effect on firefighter fatalities. The company officer may find themselves in a number of different Incident Command System (ICS) related positions, such as a safety officer, a strike team leader, a division or group supervisor, a branch director, or even an incident commander; all of which place a high level of responsibility and accountability upon the company officer as the decisions they make (or not make) can have significant effect on firefighter safety and survivability. The SCCFD company officer continuing education program has the potential to reduce firefighter fatalities with increased training in the targeted areas known to lead to firefighter fatalities.

The SCCFD company officer continuing education program can be seen as an emerging issue because the concept of continuing education for fire service professionals across the world,

particularly company officers, is as important as ever due to the continuously changing and challenging fire ground and fire station environment.

Literature Review

The purposes of the literature review for this Applied Research Project (ARP) were (a) to review relevant information on fire service training and education; (b) to review relevant information on continuing education; (c) to review various methods in delivering fire service continuing education coursework; and (d) to review relevant information specific to the SCCFD company officer continuing education program.

The literature review began at the Learning Resource Center (LRC) of the National Fire Academy (NFA) in Emmitsburg, Maryland, in May of 2009. The LRC staff assisted with collecting books, journals, and articles related to training and education, training mandates, professional development, incident management, incident command system, succession planning, continuing education, company officer development, and training methods. The literature review continued in California with an extensive online search of journals, books, and articles via the World Wide Web, the researcher's personal library, the SCCFD Training Division library, and the City of San Jose public library.

Company Officer Roles and Responsibilities

What is the role and responsibility of the company officer? National Fire Protection Association (2006) discussed the most obvious role, that of commanding a team of firefighters into a demanding and taxing emergency situation. While the emergency scene is of course the most exciting for the typical company officer, the average work day does not usually offer action packed emergency scenes; the average work day usually entails "routine administrative activities related to the work group and the physical facility" (p. 40). While the routine duties are not the

most glamorous, they are the duties that take up most of the time and form the foundation for emergency scene activities:

The fire officer is responsible for managing a work unit within the fire department, and many basic functions have to be performed to ensure that the work unit will be prepared to function effectively when it is needed. A large part of the officer's time has to be spent managing personnel, resources and programs (p. 40).

Buckman (2006) discussed the need to have the company officer, functioning as the first arriving incident commander at the emergency scene, "to have a keen understanding of the role they play in the strategic decision making of the department" (p. 323). The point being made was that the company officer will be arriving typically before a chief officer; thus it is necessary to ensure they are adequately trained, educated and prepared to manage an emergency incident of virtually any size until relieved by a senior officer, typically a chief officer.

How does the company officer fit into the incident command system and the overall management of an incident? National Fire Protection Association (2006) discussed the importance of the company officer being capable and ready to be the first incident commander, in addition to a company-level supervisor functioning within the Incident Management System. Additionally, although someone may only be a company officer in rank, they may have to assume positions within the Incident Command System that a chief officer might normally fill, but may not be able to depending on timing and availability, among other things:

As a company-level officer, the incident commander has basic responsibilities that include supervising the work of a group of firefighters, while also reporting to a higher-level officer and working within a structured plan at the scene of an incident. In addition,

a company-level officer must be prepared to assume overall command of an incident and implement the Incident Management System (p. 295).

Could a fire service employee, particular a company officer, be held liable for an injury or death of a person under their supervision? Traditionally no; however, in 2000, California Assembly Bill (AB) 1127 was enacted and actually eliminated many of the immunities from criminal and/or civil liabilities that were formerly in place for governmental personnel such as fire officers, during situations of workplace safety standard violations within the State of California. AB 1127 provides that "local government officials now can face individual fines, prison and civil lawsuits if they fail to provide a safe workplace" (Schoonover and Dowdle, 2006, p. 6). The result is that a company officer with the SCCFD may now go to jail or be sued if one of the personnel under their supervision is injured or killed in the line-of-duty.

In summary, a company officer has one of the most challenging positions in the fire service, and in the SCCFD, based on the liability and responsibility given to the position of supervising a front-line fire company. The roles and responsibilities of a company officer are many, and two of the primary areas of concern are the emergency scene and with administrative functions, including managing personnel and their assigned fire station.

Training and Education

What levels of training and education typically exist in the fire service? Barr and Eversole (2006) discussed the three basic levels of training found in the fire service: a) initial training, b) refresher training, and c) enhancement training. Initial training is the training provided as the baseline training for entry into a specific rank, such as firefighter, fire officer, chief officer, etc. Refresher training is the training that provides any updates or review training to information that may have been provided as a baseline at an earlier date, and may also be called

continuing education or on-going training. Enhancement training is the training provided through institutes of higher learning or even colleges offering two-year or higher degree programs and courses (p. 295).

Why is training and education necessary? Compton and Granito (2002) believe that "in almost every industry, training or education is necessary at some or all levels of operation if a job is to be safely and effectively completed" (p. 267).

The SCCFD Training Division is overseen by a Deputy Chief of Training, and supported by a captain, a firefighter/engineer and a secretary. These personnel are tasked with numerous duties and responsibilities, most notably coordinating and delivering training to all Department employees, to ensure personnel of all ranks are kept up-to-date with the latest information and techniques (SCCFD, 2007). Unfortunately, with over 300 department personnel of various ranks, it is virtually impossible to ensure all ranks are receiving sufficient continuing education, unless the employee is actively taking a vested interest in their own career development and willing to actively pursue opportunities on and off duty.

In summary, training and education can occur in a variety of methods, and are necessary for personnel of all ranks, including a company officer.

Training Mandates

Are there any specific requirements for a fire service professional to remain up-to-date with a certain job assignment or function? Schoonover and Dowdle (2006) portrayed the required refresher training subjects for firefighters in the State of California (Table 1). As for the company officer, since they are by definition a firefighter (in addition to being a company officer), they are required to complete the annual training necessary, per their specialty, rank or

assignment. Thus, not every one of the following subjects in Table 1 will be required of all company officers.

Table 1

Refresher training for California Fire Service personnel

Item	Frequency	Reference
Sexual Harassment (Supervisors)	Every 2 years	Govt. Code §12950.1
EMT Continuing Education	12 hours per year	22 CCR §100080
Paramedic Continuing Education	24 hours per year	8 CCR §100167
CPR	Every 2 years	Health & Safety §1797.215
Defibrillators	Quarterly checks	Health & Safety §1797.196
Bloodborne Pathogens	Annual Refresher	8 CCR §5193(g)(2)
Haz Mat First Responder Operational	Annual Refresher	8 CCR §5192(q)(8)
Haz Mat Technician / Specialist	Annual Refresher	8 CCR §5192(q)(8)
Haz Mat Incident Commander	Annual Refresher	8 CCR §5192(q)(8)
Respiratory Protection	Annual Refresher	8 CCR §5144(k)
Hearing	Annual Training	8 CCR §5096-5099
Confined Space	Annual Drill	8 CCR §5157
Aircraft Rescue Fire Fighting	Annual Live Drill	14 CFR §139.319

Note. CCR stands for California Code of Regulations. CFR stands for Code of Federal Regulations (p. 17).

Note that in Table 1, only two of the required subjects below are directly related to duties and responsibilities of a typical company officer: 1. Sexual Harassment, and 2. Haz Mat Incident

Commander. Since the SCCFD does not provide any airport fire protection, the aircraft rescue fire fighting training is not required. Additionally, many company officers are not paramedics, and are not trained to the hazardous materials technician or specialist level, thus negating the need for refresher training in either of those two areas.

What are training mandates? Training mandates "are a collection of laws, regulations, and their interpretations that define what training a fire department is legally required to deliver to its personnel" (Schoonover and Dowdle, 2006, p. 3). One challenge with training mandates is that they are typically required but not funded; thus, in tough economic times, this is an added challenge to a fire department. For a California fire department such as the SCCFD, the majority of these mandates are direct regulations as determined by the California Occupational Safety and Health Administration (Cal OSHA). Training mandates are a double-edged sword in that there may not be anyone looking over a fire department to ensure they are completed; however, in the case of a regular audit, or even worse, a tragedy such as a firefighter line-of-duty-death or significant injury, an investigation may discover that certain mandates were not completed, potentially opening up a fire department and it's personnel to being held civilly or criminally liable.

The SCCFD, like every other fire department in the State of California, is expected to comply with these mandates for three primary reasons: 1) employee safety, 2) performance to recognized industry standards, and 3) for the decrease in potential liability for a governmental agency such as a fire department, in addition to its personnel (Schoonover and Dowdle, 2006).

Schoonover and Dowdle (2006) discussed the most common state or national standards that could be referenced by a Cal OSHA investigator in the event of a serious firefighter injury or fatality, and potentially held against the employer: a) California State Fire Marshal certifications,

including company officer and chief officer, b) California Fire Service Training and Education Program classes, c) FIRESCOPE Incident Command System position descriptions, d) National Wildfire Coordinating Group 310.1 certification system, e) National Fire Protection Association standards and f) other "recognized" standards from the National Fire Academy, the National Registry of Emergency Medical Technicians, the National Association of Professional Drivers and the International Society of Fire Service Instructors (p. 11).

Schoonover and Dowdle (2006) discussed the challenge faced by most fire departments, particularly when attempting to meet and comply with all training mandates. While many departments may do a superior job relating to entry-level firefighter training and with meeting annual EMS training mandates, a weakness exists in regards to specialized operations, due to the amount of time available in a given day, not to mention the numerous other competing interests such as responding to emergency incidents, performing public education or fire prevention duties, and performing station or apparatus maintenance. Specialized operations can include a number of areas, including but not limited to technical rescue, hazardous materials, hazards unique to a specific jurisdiction, and officer development.

In summary, while there are various training mandates imposed by various agencies such as local, state, or national organizations or associations, the challenge most fire departments face is attempting to accomplish all of the required mandates in a limited amount of time and with limited budgets.

Continuing Education

Is there any requirement for continuing education in the fire service? Yes and no. While most fire departments do an adequate job of providing training to newly hired firefighting personnel, either paid or volunteer, the challenge most fire departments face is providing some

form of on-going, continuing education program specifically catered to the company officer ranks.

Continuing education for Emergency Medical Service EMS personnel is not new; EMS personnel, such as emergency medical technicians, paramedics, nurses and doctors, working for fire departments, ambulance providers, hospitals or other public or governmental agencies or private businesses are expected to complete a certain number of continuing education hours on an annual basis, in order to maintain their EMS related certifications.

California State Fire Training (2008) discussed the findings of an internal needs analysis that was performed in 2006 when over one hundred California fire service professionals met to discuss the current state of California State Fire Training and provide recommendations of areas of improvement. Regarding continuing education, it was determined that "there is no requirement for fire fighters, fire officers, chief officers, or instructors to maintain their skills and knowledge through a comprehensive continuing education program" (p. 5).

The Henderson Fire Department Training Plan (Henderson Fire Department, 2002) discussed their all encompassing training and education plan that addressed initial and continuing training and education specifically for company officers. They specifically require 12 hours annually of company officer continuing education, to ensure their officers are receiving the most up-to-date knowledge, skills and abilities, with the hopes of improving their supervisory abilities and to ensure consistency amongst officers. They provide all officers training on off-duty hours, and pay personnel overtime to attend, using a combination of instructors from inside and outside of the department. They post a schedule each December for the following year and determine curriculum based on a needs analysis, obtained by surveying current company officers and then finalized through a review process. In addition to these required 12 hours, they have also created

a monthly training program targeted at future company officers who want to develop their supervisory skills, but also open to current company officers who want to refresh their skills.

The SCCFD, like most fire departments, believes the employee is the greatest asset. The SCCFD Business Plan (SCCFD, 2004) discusses the department's commitment to training and education for its personnel: "continuing professional development is encouraged for all employees; an educational reimbursement fund is available to assist employees who wish to attend classes and attain college degrees" (p. 52). Additionally, the SCCFD sponsors personnel to attend position specific training at various local community colleges, the California Fire Academy, and the National Fire Academy. However, none of the above is actually mandatory and the participation in such opportunities is usually the responsibility of the employee to request.

Compton and Granito (2002) discussed the need for staff development programs, above and beyond the basic training provided (if any) to the employee upon promotion to their current rank, which allow personnel to increase their knowledge, skills and abilities, not to mention prepare them for future promotions. Because of the continuously increasing challenges and demands placed upon fire service officers, they feel it is critical to invest time and money into providing training in areas such as leadership, management, problem-solving, planning and organizational skills (p. 275).

Who is responsible for providing continuing education to fire department personnel – the training division, the company officers or the chief officers? Sargent (2005) believed that

Continuing education is a two-pronged attack. First and foremost is the critical nature of frontline officers and battalion chiefs who develop and present real training and multiple-

company training. Second is the mass training done by the organization in the form of inservice training sessions (p. 104).

What types of training should a fire department focus on relating to continuing education, especially for company officers? Sargent (2005) discussed three primary areas to focus on relating to continuing education: 1) training on basic issues; the bread-and-butter items like placing ladders, performing ventilation, or deploying hoselines, items that sometimes get forgotten due to so many new things being put on our plates, 2) high-risk/low-frequency issues; the items we see so infrequently thus without continuing education, are probably not as proficient as we should be in. These items, such as performing a live training burn, managing a firefighter mayday scenario or a technical rescue situation, have the high probability for injury, death or even mismanagement if not performed on a regular basis, and 3) multi-company operations; a subject that could be tied back to the high-risk/low-frequency events, since most fire department responses require a single fire apparatus to manage (p. 104).

Are there consequences to having items added to the list of necessary items a firefighter needs to be trained in, without having any form of continuing education requirements? Coleman (2002) felt there are, and they include three primary areas, a) skills degradation, b) information half-life, and c) lifelong learning. An example of skills degradation is when we provide training to an entry-level firefighter in the recruit academy and do not provide any form of continuing education, a very common practice. Information half-life is the when we do not make an effort to bring our personnel up-to-date with the practices they were originally trained on, but may have changed over the years; an example of information half-life is training personnel to provide an offensive fire attack within a building with lightweight truss roof construction that has been impinged by fire. If it was a conventional roof, an offensive fire attack would not be unrealistic;

however, knowing that a lightweight truss roof assembly could fail within minutes of being impinged by fire as we are taught today would require a change to tactics that some of our members may have been taught upon entering the fire service 25 or 30 years ago. If the fire service wants to be a true profession, on the par with the medical or legal professions, there must be a provision or expectation of lifelong learning, to keep up-to-date with changes and the fire service in general. Continuing education in general provides a perfect form of lifelong learning.

Wallace (2009) provided a correlation between the airline industry and the fire service, "virtually everyone who makes critical decisions under extreme emergency conditions is now studying and will continue to study everything about U.S. Airways Flight 1549. The outcome wasn't luck" (p. 111). This was in reference to the airplane that safely landed into the Hudson River between New Jersey and New York in 2009. His focus was how training and education, initial and continuing, is critical to survival, especially during extreme emergency situations. He went on to add "there is a direct relationship between fire service training and professional development and the constant training and development that airline crews receive" (p. 112).

In summary, continuing education is a critical component of training and education, and is necessary to ensure personnel are adequately trained and prepared to perform their jobs now and in the future.

SCCFD Company Officer Continuing Education Program

What is the SCCFD continuing education program? In 2006, Acting Deputy Chief Lynn Caldwell, at the direction of Interim Fire Chief Ken Waldvogel, began creating the first-ever SCCFD company officer continuing education program, as a four-year pilot program. L. Caldwell (personal communication, August 29, 2006) established the program with the following guidelines:

- a. Every SCCFD captain will participate in eight hours of continuing education each year over the course of four years.
- b. Curriculum has yet to be determined, and will be based on feedback received from SCCFD personnel, including the ranks of captain, battalion chief, deputy chief, assistant chief, fire chief and other members qualifying as senior staff (business director, public education officer, personnel services director, administrative support personnel)
- c. Depending on the subject matter, instructional staff may be department personnel or outside instructors.

L. Caldwell (personal communication, August 31, 2006) provided an internal survey to all company officers and chief officers to elicit feedback regarding what subject areas they felt would be the best to cover during the first four years of the pilot program. The feedback received from the department personnel could be broken down into three primary categories, which include the number of personnel who felt this subject area was a needed area to include in the training: a) fire station / personnel management related – 15 responses, b) fireground / incident management related – 10 responses, and c) communications / documentation related – 5 responses.

In 2007, the SCCFD continuing education program curriculum consisted of the following subject areas: a) Radio communications for SCCFD apparatus responding to active fire events in areas known as State Responsibility Areas (SRA) or in Mutual Threat Zones (MTZ), and b) Use of the Motorola XTS5000R portable radio, including radio capabilities, radio discipline and radio etiquette (L. Caldwell, personal communication, October 10, 2006). This curriculum was provided over three separate days, to ensure all company officers were able to attend, and was

primarily lecture based training, with some discussion and manipulative training included as well. The instructors were a combination of SCCFD company officers, acting battalion chiefs, and battalion chiefs, in addition to personnel from Cal Fire (the state fire agency responsible for fire protection in SRA jurisdiction and whom we communicate with and respond with on a daily basis), and even dispatchers from the Santa Clara County General Services Agency Communications Center (the agency providing dispatch services for the SCCFD).

In 2008, the SCCFD continuing education program curriculum consisted of a training session on a legislative bill that had been recently made into California law, the Firefighter's Bill of Rights (H. Rooney, personal communication, May 29, 2008). This curriculum was provided over three separate days, to ensure all company officers were able to attend, and was primarily lecture based training, with group discussion and some group activities. The instructor was a labor attorney who works with the SCCFD International Association of Fire Fighters Local 1165 Executive Board, in addition to numerous other fire department union locals in the State of California.

In 2009, the SCCFD continuing education program curriculum consisted of a training session on progressive discipline, entering training records, and strategy and tactics (H. Rooney, personal communication, August 17, 2009). This curriculum was provided over three separate days, to ensure all company officers were able to attend, and was primarily lecture based training, with group discussion and a chance for one person at a time to complete a computer simulation relating to managing an emergency incident. There was also a one-day make-up session for personnel unable to make one of the initial sessions. The instructors were made up of personnel from the County of Santa Clara and the SCCFD.

What have been the associated costs relating to the SCCFD company officer continuing education program? While it is tough to pinpoint actual staff time devoted to creating the curriculum and preparing each lesson plan, it is possible to determine actual personnel costs incurred in the form of overtime for personnel to attend each session. Instead of having personnel attend a continuing education session on their assigned shift (as is the practice during the biannual company officer meetings), the decision was made to mix up personnel amongst shifts. Thus some personnel would be paid overtime off-duty to attend class, and those that attended onduty would be backfilled with personnel who are paid overtime.

One challenge of the current SCCFD company officer continuing education program is that while it is required and mandatory, there has been no mechanism in place for make-up should a company officer be out on long-term injury or illness, or should they be out on approved leave during the time of the initial training session offerings, or the usual one-day make-up session that may not account for all personnel.

To assist with staffing, deployment, and other administrative functions such as payroll and the tracking of various types of employee usage of time-off and overtime costs, the SCCFD utilizes TeleStaff, an automated staffing software program. TeleStaff records (retrieved on October 18, 2009) provided the following personnel costs related specifically to the SCCFD company officer continuing education program: 2007 sessions: \$17,777.78, 2008 sessions: \$17,200.35, 2009 sessions: \$24,069.09. The total personnel cost for the years 2007 – 2009 was \$59,047.22.

In summary, the SCCFD company officer continuing education program has completed its third year, and has provided continuing education in a variety of timely topics.

Certifications and Qualifications

The California Incident Command Certification System (n.d.) described the evolution of a statewide system to ensure fire service professionals remain up-to-date in terms of credentialing, most commonly known as the California Incident Command Certification System (CICCS) whereas an individual is not only certified, but remains qualified to perform a certain function within the Incident Command System. In 2002, as a cooperative effort between the California State Fire Marshal's Office (CSFMO) and the Governor's Office of Emergency Services (OES), the CICCS was born. Modeled after the Federal fire service, the two agency partnership was created because the California State Fire Training Division was under the CSFMO and the management of the movement of fire resources throughout the state during mutual aid requests during major emergencies was coordinated by the OES.

The State of California is known for its wildfires, and also for an extensive statewide mutual aid system, where fire departments provide voluntary mutual aid to other departments, anywhere within the state and at a moment's notice, when an emergency incident overwhelms the jurisdiction where the incident is occurring. One of the primary reasons of implementing such a program was to ensure that statewide, fire service personnel that provided assistance to other jurisdictions in time of need were actually trained and educated, more specifically certified and qualified, in a specific role or responsibility, regardless of whether they were a newly hired firefighter or a seasoned, veteran fire chief. When a major emergency incident is occurring within a jurisdiction, the last thing that jurisdiction, as well as the incident commander (the person responsible for managing the entire event) wants is firefighting personnel who are not trained and educated to a certain, standardized level.

Prior to this program, an individual would attend a class offering certification, anywhere from 8 to 40 hours in length; this certification usually consisted of classroom training, possibly some hands-on training, and maybe even a final examination. Upon receiving a course completion certificate, the individual was considered to be certified in that subject.

Most of these courses centered around the Incident Command System (ICS) and were position specific, for example safety officer, public information officer, operations section chief, planning section chief, strike team leader, and virtually any other position specific to the ICS organization. However, just because someone was certified to fill a certain position, it did not mean they were actually qualified to fill that position. Prior to the adoption of CICCS, upon completion of a course, particularly a certification course, there was no mechanism to require an individual to perform any type of refresher or continuing education training to stay current, or even demonstrate they were actually qualified to perform in that position.

To actually be qualified in CICCS, an individual must first complete the state or nationally certified course, which usually consists of a final exam and required hours and participation. Once they have completed the course, and they desire to actually become qualified, they must have their fire chief or his/her designee initiate their Position Task Book (PTB), to allow them to be a CICCS trainee and start having the various competencies signed off in the PTB by someone who is already qualified in that position. By initiating the PTB, the fire chief is verifying that the trainee actually meets the standards for that position they are attempting to get signed off to function in, per the standards found within the publication from the National Wildfire Coordinating Group (NWCG), 310-1. After a PTB is initiated, the individual has three years to complete all of the competencies within it, and then receive final verification from the fire chief that the information is indeed accurate and the individual is able to function in that

position, and represent the department. If the PTB is unable to be completed within three years of being initiated, an individual must have their fire chief initiate another PTB and start the process over (California Incident Command Certification System, n.d., p. 6).

Brunacini (2004) provided an interesting view on certifications and how our daily lives are impacted by others in regards to being certified and qualified in the workplace:

Most of us can't get out and about unless we're certified (licensed) to drive a motor vehicle. If our destination happens to be a professional hair salon, our haircutter must hold a license to cut and style our hair. If we decide to have a bite to eat after our haircut, the restaurant we visit will have been inspected and licensed. It seems that everyone, everywhere must possess some type of certification in order to practice their chosen trade, from barbers to neurosurgeons (p. 39).

Brunacini (2004) further discussed how fire service continuing education typically focuses only on the EMS side of our industry, as opposed to the primary reason we advertise ourselves to be in business – as a fire department. "It's crazy when you step back and realize that Captain Smith has to be certified to take a patient's blood pressure, but he doesn't need any certification to assume incident command and manage a structure fire" (p. 39). Something he proposed is the "blue card" program, similar to the "red card" system that the Federal fire service uses, to ensure personnel and not only certified, but also qualified and their knowledge, skills, and abilities are determined to be up-to-date. While the Federal "red card" system is meant for large scale incidents that the average municipal or local firefighter will rarely if ever have to manage or participate in, the "blue card" system is meant for the local responder who will most likely never have to manage or participate in a major wildland fire or other similar, large-scale incident. The reasoning for the "blue card" system was the feeling that having personnel trained

for large-scale events that may never occur within their jurisdiction or where they may never be in a position to manage such an incident is not realistic. However, having personnel trained for the incidents most jurisdictions will regularly be called on to manage or assist in managing, such as a house fire, is extremely important since it is the incidents most fire officers will be faced with.

Regarding the importance of strategy and tactics training for company officers, Ennis (2008) posed the following

It's often asked how, with all the advances in firefighting technology in the past 30 years, firefighting still are killed and injured while responding to fewer working fires. The answer is obvious – because they are responding to fewer working fires. Or, in some cases, because they are going to the same fire too many times (p. 58).

Additionally, Ennis (2008) felt the primary solution to this problem virtually every fire officer is faced with, the declining lack of fireground experience, is to offer additional training that is realistic, to reinforce strategic and tactical decision making. The use of computer simulations is a primary method of accomplishing this, and there are numerous computer software programs on the market to assist with this problem.

In summary, the term certifications and qualifications is concept that appears to be here to stay. Long gone are the days when someone completes a class for just being there, without having to demonstrate any form of initial or even on-going competency.

Training Methods

How might a company officer receive continuing education? Traditional training and education typically occurred in the classroom. However, in today's world, fire departments are forced to evaluate and implement alternative training methods, as opposed to straight classroom

lecture. Some of the reasons this is necessary is because of increased fuel costs, the desire to not have to shuffle fire apparatus and personnel around a jurisdiction and potentially leave a fire station uncovered, increased traffic, and issues relating to time management or just planning in general.

While there is no one method that best meets the needs of every fire department or every company officer, Carter and Rausch (2008) provided the most common methods for professional development and/or continuing education: a) community colleges offering two-year degree programs in fire science curriculum, b) colleges and universities offering four-year degree programs in not only fire science curriculum, but closely linked curriculum such as management, public administration, administration, etc., c) local, county or state fire training academies, d) fire department sponsored/operated officer training programs, e) programs sponsored by the National Fire Academy at their facility in Emmitsburg, Maryland, or off-site at local, county or state venues, and f) self-paced study programs that meet the standards of NFPA 1021 (p. 35).

While lecture may have been the traditional method for providing training and education (initial and continuing), Compton and Granito (2002) discussed how in this high-tech world we are living in, instructors are challenged to keeping up with the most effective methods to present various curricula to students, one reason being that the audiovisual equipment and delivery techniques are so rapidly changing, another being the psychology of education is also constantly being researched and evaluated. Various formats for delivering fire service curriculum may include: (a) classroom lecture, (b) hands-on practice, (c) computer simulations, (d) traditional self-study, (e) demonstration, and (f) interactive computer self-study (p. 272).

Evans (2004) felt that using technology, specifically the internet, is a useful way to ensure fire service personnel receive continuing education, without having to leave their fire

station: "online education may be an effective alternative to the time a student is required to sit in the classroom, plus it makes effective use of fire station Internet access and computer time" (p. 113). Evans went on to discuss that online training and education is not without its faults either, since this form of education sometimes raises eyebrows particularly with the quality of education since in some programs, it is possible for a student to start the program and immediately go to the end and take the quiz, without having spent a specific time reading the material. He felt the solution to this was to also have some form of competency based scenario or performance evaluation afterwards where the employee would have to demonstrate that learning has occurred.

Jenaway (2004) discussed how fire service training delivery has significantly changed over the years. When personnel entered the fire service twenty or more years ago, classroom training was the norm. However, in today's world, classroom training is just one way to provide training and education to personnel. He described the numerous methods of instructional delivery available to the fire service today, including simulations, self-paced education, computer-based training and distance learning via the Internet, just to name a few.

Nixon (2003) discussed his frustration with EMS related continuing education programs that were primarily lecture based programs, that did not include any form of manipulative or hands-on training. He felt the need to balance lecture with manipulative training, to ensure attendees are actually still able to perform the skills. In his experience, this was critical for all medical professionals, not just those who are currently working, but for those who may not be practicing medical professionals or are just medical professionals who may be practicing, but not working in busy, active systems providing significant levels of on-the-job experience.

To provide an alternative to lecture-based continuing education, May (2004) discussed the use of computer simulations to provide realistic training to company officers:

As a general rule, most employers try to provide employee training that is state-of-the-art, cost effective and safe. The airline industry, for instance, conducts extensive pilot training via flight simulators. This same technology can and is being used to train firefighters (p. 72).

The Olympia, Washington Fire Department has created a low-cost computer simulation program to not only prepare their fire officers with managing incidents they may face, but to also certify them as incident commanders. Due to the declining number of fires within their jurisdiction, they created a program that consists of having members complete task books consisting of various competencies (based on NFPA standards), through the use of computer simulations. This program allows personnel to actually make mistakes in the classroom setting, and obtain live feedback for improvement; personnel must repeat each separate simulation if they do not meet the expectation of the department. The entire program typically takes about 2 years to complete, and was modeled after the Phoenix, Arizona Fire Department Command Training Center (Sendelbach, 2009).

Computer simulation programs are not just limited to the fireground. Simulation programs today can train fire officers who may find themselves having to manage an incident in a variety of disciplines, including but not limited to mass-casualty incidents that involve weapons of mass destruction items such as chemical, biological, radiological or nuclear agents (Markley, 2008). Why use simulation programs? Markley (2008) felt that simulations can function as "a rehearsal for live training," which can only lead to a greater degree of success when having to face the real incident (p. 70).

Are other industries using computer simulations? Computer simulations are not limited to the fire service; the airline industry has used them for years to "flawlessly replicate the controls

and movement of a commercial airliner," and help prepare pilots for a variety of situations, from normal take-off and landings, to in-flight emergencies (May, 2004, p. 72).

Buckman (2006) discussed a continuing education program utilized by the Norton Shores, Michigan Fire Department since 1998, and created to mirror EMS continuing education requirements in place across the country. This program, while meant for all ranks of fire service personnel with the department, does have a segment targeted at the company officer. The primary objective of this program is "to reduce firefighter injuries and provide efficient service to the residents and visitors of our service area" (p. 181). The fire officer component consists of monthly officer meetings to allow the Fire Chief to discuss current issues, as well as provide training and education in administrative and operations related subject areas.

As for the method or source chosen for continuing education, Compton and Granito (2002) offered the following:

Whatever the source of the education and training, each fire and rescue organization has an obligation to the community to provide high-quality leadership. Grooming those within the department to manage effectively not only addresses that obligation at the particular time but also provides an investment in future leadership (p. 276).

In summary, while it may not be mandated by a specific fire department, providing some form of continuing training and education specifically for company officers should be considered critical to ensure they are adequately prepared to carry out the ever-changing duties and responsibilities of their position and of future positions they may find themselves placed into. For continuing education to be successful, it needs to be a partnership between a fire department and the individual employee; both of whom have a vested interest in career development.

Procedures

The purpose of this research was to describe employee satisfaction with the current SCCFD company officer continuing education program.

This ARP began at the NFA's LRC in Emmitsburg, Maryland in May 2009. The LRC staff assisted the researcher with collecting books, journals, and articles related to company officer, training and education, training mandates, continuing education, certifications and qualifications, and training methods. The literature review continued in California with an extensive online search, via the World Wide Web, of journals, books, and articles, as well as materials from the researcher's personal library, the SCCFD Training Division library, and the City of San Jose public library. Key words used for searching purposes were *company officer*, training and education, training mandates, continuing education, SCCFD continuing education program, certifications and qualifications, and training methods.

Descriptive research was used to address the following research questions:

- 1. What is the level of satisfaction for the SCCFD company officer continuing education program?
- 2. What subject areas do SCCFD company officers feel should be included in future continuing education programs?
- 3. Of the annual training sessions hosted by the department in 2007, 2008 and 2009, which session provided the most valuable curriculum to assist company officers in doing their job?
- 4. How much does the SCCFD company officer continuing education program cost the department annually?

5. What are alternative methods to providing continuing education besides the classroom setting?

The first part of the research process was the review of literature related to company officer roles and responsibilities, training and education, training mandates, continuing education, SCCFD company officer continuing education program, certifications and qualifications, and training methods. The literature review was designed to address the research questions. The second part of the process involved an internal survey designed to elicit objective responses from study participants to facilitate consistent and accurate data collection and analysis. This survey design produced data for addressing the research questions and helped to delineate criteria that could be used to evaluate the current company officer continuing education program and provide feedback for improvement, and to determine the overall level of satisfaction with the SCCFD company officer continuing education program. The internal survey was intended to provide answers to research questions 1, 2, 3, and 5.

At the time of the research there were 72 full-time equivalent fire captain positions within the SCCFD, but only 68 being filled with active members due to recent retirements and personnel out sick due to a long-term injury. The survey sample was limited to the rank of Fire Captain because those people were most likely going to have had experience with the company officer continuing education program.

An 11-item survey instrument (appendix A) was developed by the researcher to sample persons currently holding the rank of fire captain in the SCCFD. The items were a combination of forced-choice design (*yes*, *no*, *not applicable*, *unsure*, etc.) and open-ended design, with clarification permitted for certain questions. Specifically, respondents were asked to report their perceptions of the current company officer continuing education program, including positive and

negative aspects; what subject areas should be included in future program sessions; whether the program was meeting their expectations; the ranking in order of preference of previously offered sessions; whether the method of delivery /instruction was effective; and whether they felt better prepared to do their job as a fire captain after having attended the previous sessions. It was expected that the time to complete the survey would be less than 15 minutes.

The internal survey was administered to 5 persons inside and outside of the SCCFD, as a pilot study prior to its distribution to the SCCFD fire captains. While 1 of the persons was a current fire captain, 4 of the 5 were not of the rank of captain: two firefighter/engineers, a firefighter/engineer-paramedic, and an assistant chief. This was done to elicit a variety of view-points, attitudes, and opinions. The assistant chief was chosen from outside the SCCFD to provide a view from someone who was not familiar with the SCCFD company officer continuing education program. All pilot test participants completed the survey without difficulty, and their comments were incorporated into the final version of the survey, which was subsequently distributed to the SCCFD fire captains.

The internal survey was mailed to the 68 active fire captains in the SCCFD on August 28, 2009 (detailed results are shown in appendix B). The plan was to allow the respondents no more than 28 days to complete the survey. Prior to receiving returned surveys, a template was created to tabulate responses. Each question and possible answer was put into a table format, with space below each question for comments. As each survey arrived, the raw data were transferred to the table. After the data from each of the completed surveys were transferred to the results section, the surveys were placed in a folder in a locked cabinet for archival purposes. A total of 39 out of a possible 68 surveys were returned, for a return rate of 57%.

Limitations

After reviewing the completed surveys and discussing the company officer continuing education program with various SCCFD personnel during the course of the research, it was determined that the chief officers who either supervise the captains or establish Department policy and manage major divisions, should have been included in the surveys to also obtain their feedback. The majority of chief officers have attended most (if not all) of the three company officer continuing education program offerings. Although it did provide anonymity, another limitation of the internal survey was that the surveys were not numbered, which precluded following up with fire captains who had not returned the survey.

Definition of Terms

The following terms are defined in the context of this research.

Company: The basic unit of the fire service, typically an apparatus with a specific mission and personnel trained for that specific mission. Common examples include engine companies, truck companies and rescue companies.

Company officer: The first-line supervisor of a fire company, typically supervising a crew of two or three personnel, and usually the rank of lieutenant or captain. In the SCCFD, the company officer is known as a fire captain, and typically works on an engine company, a truck company, a rescue company, or the hazardous materials company.

Continuing education: On-going training and education to ensure an individual is kept up-to-date with information and techniques relating to a specific discipline.

Results

The purpose of this research was to describe employee satisfaction with the current SCCFD company officer continuing education program.

Through descriptive research, which included (a) reviews of numerous written sources, (b) feedback received via an internal survey distributed to all current SCCFD fire captains who may have participated in the current company officer continuing education program, the research questions were addressed based on collected data, and answers received from the feedback provided by the SCCFD fire captains.

The internal survey instrument contained 11 items. Some items required a *yes/no/unsure* response, some required a forced choice of one of three or ten responses, and some allowed the respondent to provide open-end responses (appendix A).

The analysis and interpretation of the internal survey included a review of (a) demographics of the respondent; (b) the respondent's perceptions of whether the current company officer continuing education program is meeting the expectations of the personnel; (c) the respondent's perceptions of the positive and negative aspects of the company officer continuing education program; (d) the respondent's perception of whether the past methods of delivery/instruction for the three company officer continuing education program sessions were beneficial and/or effective; (e) the respondent's perception of what three subject areas should be included in future company officer continuing education program offerings; (f) the respondent's perception of whether the company officer continuing education program has better prepared them to do the job of a fire captain; (g) the respondent's evaluation, in rank order, of the three company officer continuing education program, and (h) the respondent's overall impression of the company officer continuing education program.

Item 1 of the internal survey asked how many years the respondent had been in the fire service. Three (8%) of the respondents who answered the question reported 5 to 9 years of fire

service experience, 2 (5%) reported 10 to 14 years, 7 (18%) reported 15 to 19 years, 7 (18%) reported 20 to 24 years, and 20 (51%) reported 25 or more years (Table 2).

Item 2 of the internal survey asked how many years the respondent had been a Captain. Thirteen (33%) of the respondents who answered this question reported less than 5 years of Captain experience, 8 (20.5%) reported 5 to 9 years, 7 (18%) reported 10 to 14 years, 8 (20.5%) reported 15 to 19 years, and 3 (8%) reported 20 or more years (Table 2).

Table 2 Summary of Responses to Survey Items 1-3 (N = 39)

Item	f	%
Years of fire service experience		
5 to 9	3	8.0
10 to 14	2	5.0
15 to 19	7	18.0
20 to 24	7	18.0
25 or greater	20	51.0
2. Years of Fire Captain experience		
Less than 5	13	33.0
5 to 9	8	20.5
10 to 14	7	18.0
15 to 19	8	20.5
20 or greater	3	8.0
3. Attendance at SCCFD company officer cont	tinuing education sessions	
2007	35	90.0
2008	34	87.0
2009	34	87.0

Note. SCCFD = Santa Clara County Fire Department.

Item 3 of the internal survey asked the respondent which of the three SCCFD company officer continuing education program sessions they had attended. Thirty-five (90%) respondents who answered the question reported they had attended the one in 2007, 34 (87%) respondents reported they had attended the one in 2008, and 34 (87%) reported they had attended the one in 2009 (Table 2).

Research Question 1

Research question 1 asked, What is the level of satisfaction for the Santa Clara County

Fire Department company officer continuing education program? This question was addressed via the internal survey.

Item 5 of the internal survey asked the respondent whether their participation in the company officer continuing education program has benefited them and whether they feel it has better prepared them to do the job of a fire captain. Appendix B contains the detailed results. Thirty-four (87%) of the respondents answered *yes*, 3 (8%) answered *no*, and 2 (5%) answered *unsure*. Two respondents stated that the program helps ensure all captains are on the same page.

Item 6 of the internal survey asked the respondent to rate the company officer continuing education program on a scale of one to ten, with one being the lowest rating and ten being the highest rating. Appendix B contains the detailed results. Twelve (31%) of the respondents answered 8, 9 (23%) answered 6 and 7, 3 (8%) answered 9, and 2 (5%) answered 3, 4 and 5. One respondent stated the program needs to be offered more often. One respondent stated they would rate it a 6 now, but that it is getting better (Table 3).

Table 3
Summary of Responses to Survey Item 6 (N = 39)

Item	f	%
6. Rating the SCCFD company officer CE program		
1	0	0.0
2	0	0.0
3	2	5.0
4	2	5.0
5	2	5.0
6	9	23.0
7	9	23.0
8	12	31.0
9	3	8.0
10	0	0.0

Item 9 of the internal survey asked the respondent to identify positive aspects of the company officer continuing education program. Appendix B contains the detailed results. Twenty (51%) respondents stated that the continuing education program provided a perfect forum for team-building and peer interaction, and that they enjoyed the group dynamics, especially having personnel from other shifts mixed into their session. Eight (21%) respondents stated that they appreciated the standardized training and consistency of the training, since all shifts were hearing the same information. Five (13%) respondents stated that they enjoyed hearing the Department's philosophy and the expectations of the battalion chiefs and the administrative staff. Five (13%) respondents stated the dissemination of new information and new ideas was beneficial, especially since some captains do not regularly seek out training opportunities on their own, especially off duty.

Item 10 of the internal survey asked the respondent to identify negative aspects of the company officer continuing education program. Appendix B contains the detailed results. Eight (21%) respondents stated that there could have been more time to plan for each class (for the instructors and the students); specifically the 2009 session was announced approximately two weeks prior to the first session, not allowing much time for flexibility since this was a mandatory class. Eight (21%) respondents stated they felt there was incorrect information being provided at times, that there was some inconsistency between certain instructors, and that some battalion chiefs in attendance spent too much time discussing things they could discuss at the station level. Six (15%) respondents stated that they felt the classes to be expensive due to the staffing costs. Six (15%) respondents stated that they felt the classes should be offered more than just once a year. Two (5%) respondents stated that they felt that mediocre behavior or skills were not dealt with in an appropriate manner. Two (5%) respondents stated they felt that the method of instruction (primarily lecture) did not lead to adequate student stimulation.

Item 11 of the internal survey asked the respondent to provide their overall impression of company officer continuing education program. Appendix B contains the detailed results. Thirty-five (90%) of the respondents stated that the current SCCFD company officer CE program has been beneficial and is providing good information to keep the company officers up-to-date. Four (10%) of the respondents provided comments that led the author to believe they were not satisfied with the program to date. Three (8%) of the respondents stated that it would be nice if the program could be offered more than once a year. Three (8%) of the respondents stated that they noticed on obvious need for the battalion chiefs to be more consistent and that a closer relationship between the battalion chiefs and the stations may help. Two (5%) of the respondents

stated that the Department needs to look at the return on investment to determine whether there has actually been a positive change in behavior by attendees.

Research Question 2

Research question 2 asked, What subject areas do Santa Clara County Fire Department company officers feel should be included in future continuing education programs? This question was answered via the internal survey.

Item 8 of the internal survey asked the respondent to provide up to three (3) subject areas they would like to see in future company officer continuing education programs. Appendix B contains the detailed results. Twenty-eight (72%) respondents stated that the more strategy and tactics and training through emergency simulations would be beneficial; in addition to basic structural firefighting, other related subject areas included high-rise firefighting, weapons of mass destruction, auto extrication, rapid intervention, mass casualty incidents, ventilation and truck company operations. Fifteen (38%) respondents stated they would like to see more training specifically relating to forms and documentation, both on paper and through a computer software program. This specifically focused on our records management software – Firehouse Software, including report writing for typical incidents and also fire investigation reports, in addition to the completion of the numerous forms a company officer is expected to complete, many on an infrequent basis. Thirteen (33%) respondents stated that more wildland training would be beneficial, particularly with strike team deployments, mutual aid, working with Cal Fire, and since the SCCFD recently acquired five (5) new Type III Engine companies that may be deployed anywhere within the state on a mutual aid wildland fire. Seven (8%) respondents stated that additional training in the areas of managing personnel, particularly in the form of subordinate counseling, personnel development and personnel evaluation would be beneficial.

Research Question 3

Research question 3 asked, Of the annual training sessions hosted by the department in 2007, 2008 and 2009, which session provided the most valuable curriculum to assist company officers in doing their job? This question was addressed by the internal survey.

Item 4 of the internal survey asked the respondent to rank each of the company officer continuing education program sessions they have attended, in order of preference. Seventeen (44%) of the respondents answered 2007 as their number 1 choice, 16 (41%) answered 2009 as their number 1 choice and 6 (15%) answered 2008 as their number 1 choice. Thirteen (34%) answered both 2008 and 2009 as their number 2 choice, and 12 (32%) answered 2007 as their number 2 choice. Fifteen (58%) of the respondents answered 2008 as their number 3 choice, 6 (23%) of the respondents answered 2007 as their number 3 choice, and 5 (19%) of the respondents answered 2009 as their number 3 choice, and 5 (19%) of the

To explain the variance in total responses in table 4, only 26 (66%) of the respondents had attended all three sessions, only 12 (31%) of the respondents had attended two of the three sessions, and 1 (3%) of the respondents had only attended one of the three sessions. Further, only 35 (90%) of the respondents had attended the 2007 session, 34 of the respondents had attended the 2008 session, and 34 of the respondents had attended the 2009 session.

Table 4
Summary of Responses to Survey Item 4 (N = 39)

Item	f	%
4. Rank order of SCCFD company officer co	ntinuing education sessions	
#1 - 2007	17	44.0
#1 - 2008	6	15.0
#1 – 2009	16	41.0
#2 – 2007	12	32.0
#2 - 2008	13	34.0
#2 – 2009	13	34.0
#3 – 2007	6	23.0
#3 - 2008	15	58.0
#3 – 2009	5	19.0

Research Question 4

Research question 4 asked, *How much does the Santa Clara County Fire Department company officer continuing education program cost the department annually*? This question was addressed by the literature review.

The total personnel cost for the years 2007 - 2009 was \$59,047.22. To look at the annual cost, that amount divided by three would average \$19,682.41 each year.

Personnel costs were based on overtime costs for personnel to attend off-duty, or for positions being covered with overtime due to personnel attending on-duty. It is important to note that not every fire captain attended each session, due to a variety of reasons, including being off on approved leave (sick leave, vacation, worker's compensation leave, etc.), and being unable to attend a make-up session, which may or may not have been offered. However, there were other personnel who did attend the sessions, but attended as part of their regular duty where back

staffing their position with overtime was not an issue. Personnel assigned to forty-hour per week positions at SCCFD headquarters would fall into this category.

Research Question 5

Research question 5 asked, *What alternative methods to providing continuing education besides the classroom setting*? This question was addressed by the literature review, and the survey responses.

Jenaway (2004) reported how fire service training delivery has significantly changed over the years. When personnel entered the fire service twenty or more years ago, classroom training was the norm. However, in today's world, classroom training is just one way to provide training and education to personnel. Other alternative methods to classroom instruction include simulations, self-paced education, computer-based training and distance learning via the Internet.

Continuing education can be provided in a number of different fashions, not just limited to classroom instruction. Nixon (2003) and Evans (2004) both agreed that online education is here to stay and definitely has a place and purpose within the fire service, particularly continuing education. However, they both agreed that online education is not perfect, particularly if there is not any form of competency evaluation at the end, such as manipulative or hands-on training.

The use of computer simulations, particularly to simulate the fireground or emergency scene, where the individual (typically a company officer) is placed on the hot seat and expected to successfully manage an incident, is become more frequent. Numerous authors felt that computer simulations, if done properly, were something all fire departments should invest in, to ensure their company officers are provided continuing education towards managing the emergency scene (Compton and Granito, 2002; Jenaway, 2004; May, 2004; Sendelbach, 2009).

Item 7 of the internal survey asked the respondent to identify whether the methods of delivery/instruction (primarily lecture and discussion, with some manipulative hands-on practice) used in the three previously offered company officer continuing education program sessions has been beneficial and/or effective, and whether the SCCFD should explore alternative methods of delivery/instruction. Appendix B contains the detailed results. Thirty-four (87%) of the respondents answered *yes*, 3 (8%) answered *no*, and 2 (5%) answered *unsure*. Six (15%) of the respondents stated that additional hands-on training, including simulations and role playing would be beneficial. Two (5%) of the respondents stated that there was excessive lecture and not enough student-instructor interaction.

Discussion

This section discusses the relationship between the responses to the survey instrument, and the information within the literature review. The discussion leads to an analysis and interpretation of the findings and identifies departmental implications of the findings.

The company officer in any fire department, including the SCCFD, has one of the most critical functions – that of supervising the front-line fire companies and personnel that respond to the requests for service within the communities served. For the long-term success of the fire department, the company officer needs to be well versed in emergency scene operations, in addition to the day-to-day administrative functions including managing personnel, fire apparatus and the fire station (Buckman, 2006; National Fire Protection Association, 2006). What makes the situation more challenging for a California company officer, particularly a SCCFD fire captain, is that because of recent regulation, California Assembly Bill 1127, should a person under the supervision of a company officer get killed or injured, that company officer may now face penalties, such as being sued, being sent to prison, or be fined for their lack of supervision.

The reason for this legislation was to ensure that workplace safety standard violations are enforced (Schoonover and Dowdle, 2006).

While there may be one dedicated training officer for the SCCFD (Deputy Chief of Training), due to the large number of overall personnel and the limited number of training division personnel assigned to the training officer, the true training officer is each company officer (SCCFD, 2007). Thus, it is even more important to ensure the SCCFD company officer has the latest, most relevant, and most up-to-date knowledge, skills and abilities to ensure they are doing their job to the best of their abilities.

Initial and continual training and education is necessary, for personnel of all ranks; from the entry-level firefighter to the experienced fire chief. Without some form of continuing education, it is extremely challenging, if not impossible to maintain the necessary knowledge, skills and abilities of virtually any rank or specialty within the fire service, or any line of work for that matter. Barr and Eversole (2006), Compton and Granito (2002), and Wallace (2009) agreed that training and education continuing education are critical for career development.

The SCCFD, like other fire departments, is faced with providing a variety of fire and life safety services to its community. In order to maintain a high level of proficiency, it is critical to have some form of continuing education. The challenging part is that there are only so many hours in each day, and the SCCFD (like virtually every other fire department in the nation), has certain training mandates they are required to complete on a regular basis (typically annually or semi-annually). Schoonover and Dowdle (2006) completed an extensive study on training mandates California fire departments are faced with; of the subjects they determined where required each year, the majority of hours were directed at EMS related training, with very little actually focused on supervisor related training, specific to the company officer.

The SCCFD company officer continuing education program was established in 2006 to help ensure the company officers were getting the necessary training and education to best perform their jobs. The intent was to provide company officers with eight hours of continuing education each year, with curriculum based on a needs analysis, and with instructors coming from inside and outside of the SCCFD, based on need and subject matter expertise (Caldwell, personal communication, August 29, 2006).

Is eight hours a year enough? The literature review only found one other fire department that required any specific company officer continuing education hours, a total of 12 hours per year (Henderson Fire Department, 2002). A number of respondents to the internal survey recommended that more than eight hours per year be dedicated to the company officer continuing education program. The challenge with additional hours, especially in a tough economy, is that the overtime costs would increase, unless alternative methods of instructional delivery could be employed. The only realistic way to eliminate the overtime costs would be to provide the continuing education on duty while each company officer is at the fire station, through a means such as the computer, either in a self-paced format or via a web conference. A difficulty with this option is that each workday at the SCCFD is usually filled with a number of duties and responsibilities, in addition to emergency responses. One of the reasons the SCCFD chooses to have personnel attend with their position at the fire station being staffed with overtime is to ensure the continuity and dedication of instruction. A number of respondents to the internal survey appreciated certain battalion chiefs that had been selected to instruct certain portions of the program, particularly the strategy and tactics section and the wildland section.

Is the SCCFD company officer continuing education program meeting the expectations of the personnel and better preparing them to do their job?

Based on the survey responses, SCCFD personnel overwhelmingly felt that the program has met their expectations and has made them better at their job. 34 (87%) of respondents responded *yes*, while three (8%) responded *no*, and two (5%) responded *unsure*. Additional comments offered by the respondents were all favorable, basically referencing the fact that having any type of specific continuing education is better than nothing.

When asked about their overall impression of the SCCFD continuing education program, thirty-five (90%) of the respondents, a large majority, provided very complimentary and positive feedback. Only four (10%) provided less than complimentary feedback relating to the program.

When asked about the positive aspects of the program, a simple majority of respondents, twenty (51%), enjoyed the group dynamics, especially the team-building, peer interaction, and the mixing of personnel from different shifts.

When asked about the negative aspects of the program, the items noted the most times were scheduling or flexibility issues, specifically relating to the lack of time between the date the 2009 session was announced and the actual dates, and the inconsistency between some instructors. Eight (21%) of the respondents made separate reference to the lack of flexibility provided to personnel to attend the 2009 sessions as well as the inconsistencies between instructors.

As for which of the three SCCFD company officer continuing programs provided the most value to the fire captains who had attended, it was almost equal between the 2007 and 2009 sessions. The internal survey asked respondents to rank the three company officer continuing education sessions in order from one to three, only using each number once. Seventeen (44%) of the respondents felt the 2007 session was the most valuable (rank order #1), while 16 (41%) felt the 2009 session was the most valuable, and 6 (15%) of the respondents felt the 2008 session was

the most valuable. As for the least valuable session, that is a little more challenging to determine, primarily because not every respondent had attended all three sessions. Twenty-six (66%) of the respondents had actually attended all three sessions, 12 (31%) of the respondents had attended two of the three sessions, and 1 (3%) had only attended one of the three sessions. The least valuable session (rank order #3), was clearly the 2008 session, as 15 (58%) of the respondents chose that session as their #3 preference.

Regarding curriculum needs for the SCCFD company officer continuing education program, the initial curriculum needs for the 2007, 2008 and 2009 sessions were based upon a needs analysis sent out to all company officers, chief officers and senior staff members (Caldwell, personal communication, October 10, 2006; Rooney, personal communication, May 29, 2008; and Rooney, personal communication, August 17, 2009). For the most part, the majority of respondents to the internal survey felt the curriculum provided was appropriate and relevant.

When asked about future curriculum needs for the SCCFD company officer continuing education program, the majority 28 (72%) of respondents, to the internal survey felt that additional strategy and tactics and emergency / fire ground simulation exercises would be of benefit, especially since the low frequency of such events in today's fire service. Fifteen (38%) of respondents chose documentation, report writing and the completion of forms as necessary future training subjects, all of which are a part of the necessary administrative duties of a SCCFD company officer. One-third (33%) of respondents to the internal survey stressed the need for additional wildland firefighting training, that would include related subject areas such as mutual aid deployments, and working with the forest service agencies. Lastly, 7 (8%) of the respondents

felt it was necessary to have additional training in human relations curriculum, specifically managing and developing personnel.

In terms of cost for the SCCFD company officer continuing education program to date, overall personnel costs documented within TeleStaff, the SCCFD staffing software program, totaled \$59,047.22 (TeleStaff records, retrieved on October 18, 2009). Obviously this total costs does not take into account any instructor preparation time that typically occurred on-duty, in addition to the other duties of the instructors. While that cost is built into the salary of each instructor since those instructors are already being compensated for their regular job, it is something to take into consideration because preparing for a class, especially one that occurs over three days or more, can be extremely time-consuming.

Overall, the SCCFD continuing education program appears to be on the right track, based on the responses from the internal survey. As for putting a specific ranking on the overall SCCFD company officer continuing education program, on a scale of 1 to 10, with 10 being the highest and 1 being the lowest score, the majority of respondents, thirty-three (85%) ranked the program either a 6, 7, 8 or 9. The other six (15%) respondents ranked the program a 3, 4 or 5. None of the respondents felt the program deserved the ranking of 1, 2, or 10.

Regarding the method of delivery/instruction for the SCCFD company officer continuing education program and whether it has been beneficial and/or effective, thirty-four (87%) of the respondents answered *yes*, three (8% of the respondents answered *no*, and 5% answered *unsure*.

Evans (2004) felt that using technology, specifically the internet, is a useful way to ensure fire service personnel receive continuing education, without having to leave their fire station: "online education may be an effective alternative to the time a student is required to sit in the classroom, plus it makes effective use of fire station Internet access and computer time" (p.

113). Since it can be extremely challenging to ensure all personnel receive a specific training session, due to administrative and fiscal challenges (such as scheduled time off, overtime costs, station coverage issues, etc.), having personnel complete continuing education at the fire station is an option that is going to have to be seriously evaluated by most fire departments, including the SCCFD.

For many years, even before the creation of the company officer continuing education program, the SCCFD had been providing two company officer meetings a year, providing four hours of updates from the various administrative divisions and chief officers, including time for questions and answers and ending with a roundtable to have the battalion chiefs find out what is occurring at each station. The problem with the company officer meetings is that they did not provide sufficient time to go above and beyond, as the company officer continuing education program is doing.

In summary, it can be concluded that the majority of SCCFD captains felt that it was critical to offer continuing education in the areas of managing an incident, specifically through emergency simulations and training on strategy and tactics in areas not just limited to structural firefighting, but to areas such as high-rise operations, ventilation, truck company operations, mass-casualty incident management, and rapid intervention operations.

In summary, the information obtained from the literature review and the surveys indicated that the SCCFD company officer CE program is meeting the expectations of the personnel. Based on the feedback received from the survey and the information found via the literature review, continuing education programs for all ranks, not just company officers, can be very beneficial if properly created and delivered. The challenge is to ensure there is an on-going evaluation process in place to constantly evaluate and monitor the progress of the program, to

ensure the highest quality instruction and most needed instruction is being delivered to the company officers.

Recommendations

The purpose of this research was to describe employee satisfaction with the SCCFD company officer continuing education program.

Based on responses to the survey, the information obtained from the literature review, and the analysis of the results of those processes, the following recommendations are offered to serve as an anchor point to improve the current SCCFD company officer continuing education program to ensure that the needs and expectations of the SCCFD company officers are being met, and that they the SCCFD company officers are being set up for success.

The first recommendation for the SCCFD is to create a career development committee. This committee could be overseen by a company officer or a chief officer, and would directly report to the Deputy Chief of Training. Included should be representatives from various ranks, including labor and management. This committee could oversee the company officer continuing education program, in addition to assisting the SCCFD with overall succession planning and mentoring, two additional areas that the SCCFD is faced with, due to the large number of retirements in the company officer and chief officer ranks in the near future.

The company officer continuing education program is only one component of succession planning. This committee should meet at least once a year, or on an as-needed basis. The focus of this committee would be to evaluate the most recent continuing education program; based on feedback received from participants, the committee would suggest areas of improvement for future class offerings, including curriculum needs and instructional needs. A critical component

would be to also evaluate costs and attempt to perform a cost-benefit analysis, to ensure that the SCCFD is getting a positive return on its investment.

A critical component of the evaluation process would be to involve the battalion chiefs and the senior staff; while company officers may feel they need certain areas of training the most, the battalion chiefs may see things in a different light, since they are the ones directly supervising the company officers on a daily basis. Additionally, senior staff members may have experienced or observed certain areas of needed training and education for future continuing education sessions.

The second recommendation for the SCCFD is to recommend to the fire chief that the company officer continuing education program is actually moved from its pilot program status to a formal, institutionalized program that is properly funded, managed and maintained, similar to other department programs and/or divisions.

The third recommendation for the SCCFD is to consider utilizing alternative methods of instructional delivery, including but not limited to, self-paced computer study programs, distance or online learning opportunities, and computer simulation programs, to help ensure the adult learner of today is properly retaining the material being presented. The career development committee could perform some research and assist with finding appropriate alternative methods to employ, based on cost, availability, and return on investment.

The fourth recommendation for the SCCFD is to consider adding additional hours to each year; instead of eight hours per year, the career development committee could perform a cost/benefit analysis and a needs analysis to determine if additional hours per year are justified, in terms of cost and time. Numerous respondents to the internal survey cited the need for additional hours each year. Creative funding and delivery mechanisms should be explored as

there may be low-cost methods to perform the additional training, such as computer based training on-duty that would allow the company officers to participate at their fire station, leaving their apparatus staffed and in its first-due area, and eliminating the need for overtime costs.

The fifth recommendation for the SCCFD is to continue to recruit, train, and develop new and existing instructors from inside and outside of the SCCFD to ensure that the appropriate subject matter experts are being selected to instruct specific classes. There are a number of talented and motivated individuals within the SCCFD that could be asked to teach specific subjects, based on their expertise. The career development committee could determine a method to locate and incorporate personnel to ensure they are used to the best of their abilities. This would assist with career development, but also with getting more personnel involved, hopefully leading to more buy-in. While in-house instructors can be beneficial, it would be important to also not overlook instructors from outside of the department, who may offer a specific or unique expertise in a certain subject area. The committee could identify possible outside instructors as well.

The sixth recommendation for the SCCFD is that the committee could evaluate the need for continuing education programs for other ranks and specialties within the department, such as firefighter, engineer, chief officer, and personnel within specific divisions such as the Fire Prevention Division, the Public Education Division, the Training Division, the Operations Division, and the Administrative Services division. Based on the finalized structure of the company officer continuing education program, a continuing education program for other personnel of different ranks or specialties could be implemented, at least on a pilot program basis. The hope would be that there would be an overall, comprehensive career development plan

that would help with succession planning and overall employee satisfaction and career fulfillment.

The SCCFD company officer continuing education program has the potential to meet the expectations of the SCCFD and its personnel. By putting into action the recommendations above, the SCCFD will be able to further enhance the current company officer continuing education program, to ensure it best meets the needs and expectations of all who have a vested interest in its success.

References

- Barr, R., & Eversole, J. (Eds.). (2006). The fire chief's handbook (6th ed.). Tulsa, OK: Pennwell.
- Brunacini, N. (2004, June). Card-carrying members: Fire department launches blue card certification process. *Fire Rescue Magazine*, *23*, 39-46.
- Buckman, J. (Ed.). (2006). Chief officer's desk reference. Sudbury, MA: Jones and Bartlett.
- California State Fire Training (2008). *Blueprint 2020 California state fire training and education strategic plan.* Sacramento, CA: Author.
- California Incident Command Certification System. (n.d.). *Frequently asked questions*. Retrieved October 19, 2009, from http://www.firescope.org/specialist-groups/ciccs/ciccs.htm
- Carter, H., & Rausch, E. (2008). *Management in the fire service* (4th ed.). Sudbury, MA: Jones and Bartlett.
- Coleman, R. (2002, July). No place in the fire service for lifelong learning shortcuts. *Fire Chief*, 46, 20-22.
- Compton, D., & Granito, J. (Eds.). (2002). *Managing fire services*. Washington, DC: International City and County Managers Association.
- Ennis, R. (2008, May). Flawed progress. Fire Chief, 52, 56-59.
- Evans, B. (2004, September). E-learning fills the training gap. Fire Chief, 48, 22-24.
- Henderson Fire Department. (2002). Fire and EMS training plan. Henderson, NV: Author.
- Jenaway, W. (2004, April). Courses of change. Fire Chief, 48, 86-90.
- Markley, R. (2008, June). Virtual training. Fire Chief, 52, 66-70.
- May, B. (2004, April). Virtual fire, the next level in company officer training. *Fire Rescue*, 22, 72-79.
- National Fire Protection Association. (2006). Fire officer. Sudbury, MA: Jones and Bartlett.

- Nixon, R. (2003, September/October). Is our continuing education really education? FireEMS Magazine, 44-46.
- Santa Clara County Fire Department. (2004). Santa Clara County Fire Department business plan. Los Gatos, CA: Author.
- Santa Clara County Fire Department. (2007). Santa Clara County Fire Department yearbook.

 Los Gatos, CA: Author.
- Sargent, C. (2005, March). Understanding the importance of training and experience. *Fire Rescue.* 23, 98-105.
- Schoonover, D. & Dowdle, M. (2006). *Training mandates study for the California fire service*.

 San Jose, CA: Author.
- Sendelbach, T. (2009, April). Big idea, small budget. Fire Rescue, 27, 46-47.
- U.S. Department of Homeland Security. (2008). Executive fire officer program operational policies and procedures, applied research guidelines, frequently asked questions.
 Emmitsburg, MD: Author.
- U.S. Department of Homeland Security. (2009). *Executive analysis of fire service operations in emergency management: Student manual* (2nd ed.). Emmitsburg, MD: Author.
- Wallace, M. (2009, August). Strategic planning for training and professional development. *Fire Engineering*, 162, 111-116.

APPENDIX A

Internal Fire Department Survey

FIRE DEPARTMENT SANTA CLARA COUNTY

MEMORAN	August 28, 2009
TO:	Fire Captain
FROM:	Steve Prziborowski, Battalion Chief
SUBJECT:	Executive Fire Officer Program Survey
requirements	ant in the National Fire Academy's Executive Fire Officer Program, one of the is to complete an Applied Research Project applicable to our Department. I am ur assistance by requesting you to complete the feedback instrument found on the ges.
	ny research paper is " <u>The Santa Clara County Fire Department Company Officer</u> Education Program – Is It Meeting Expectations?"
education prochanges are r	of this research is to determine if the current company officer continuing rogram meets the needs of our personnel and our Department, and to determine if needed to improve the program to ensure it is meeting the expectations of the d the Department.
final applied	f this feedback instrument will be confidential and the results will be shared in the research project. If you would like a copy of the final Applied Research Paper, feel at me and I will be happy to send you one when it is completed.
_	ete the following pages. Using the provided envelope, return the survey (minus this via Department pony mail.
	to receive all completed surveys no later than Friday September 25, 2009. Feel et me if you have any questions or concerns.
Thank you in	advance for your assistance and cooperation with this project!
	or Distribution: gel, Fire Chief

FIRE DEPARTMENT SANTA CLARA COUNTY

Executive Fire Officer Program – Applied Research Project Survey

1.	How m	any year	s have yo	ou been	in the fir	e servic	e?				
		5 to 9		10 to 14	4 🔲 1	5 to 19		20 to	24 🔲	25 or g	reater
2.	How m	any year	s have yo	ou been	a fire cap	otain?					
		Less tha	n 5	5 to 9		0 to 14		15 to	19	20 or g	reater
3.		of the Sa iing educ			•	_					
		2007 - Co 2008 - Fi 2009 - Pr	refighter'	s Bill of	Rights tr	aining			-		Fire
4.	in orde being t	r of prefe	erence, e ranking	ither as g. (Please	a 1, 2 or use each	3, with 1 letter or	1 bei n nly or	ng the	e highes nd only	t rankin rank thos	nk them g and 3 se sessions
		2007 - Co 2008 - Fi 2009 - Pr	refighter'	s Bill of	Rights tr	aining	·	ŕ	•		Fire
5.	-	feel you m and ar				_		SCC	FD com	ipany off	ficer CE
	Ye	es] No		Unsure						
6.		cale of 1 t									
	1	2	3	4	5	6	,	7	8	9	10

NOTE: Please turn over the page to answer additional questions on the back side; thank you.

discussion	vinion, has the <u>method of delivery/instruction</u> (primarily lecture, with some manipulative hands-on practice) for each of the ses and/or effective? If no or unsure, what alternative methods of i peneficial?	sion
Yes	No Unsure	
	vide up to three (3) subject areas you would you like to see offe CFD company officer CE programs:	red
c		
What do y program?	ou believe are some <u>positive</u> aspects of the SCCFD company of	icer
•		ficer
program?		
program? What do y	ou believe are some <u>positive</u> aspects of the SCCFD company of	
What do y program?	ou believe are some <u>positive</u> aspects of the SCCFD company of	fice
What do y program?	ou believe are some <u>positive</u> aspects of the SCCFD company of ou believe are some <u>negative</u> aspects of the SCCFD company of	fic

Please return this completed form to Steve Prziborowski at El Monte Station – on or before Friday September 25, 2009.

Thank you very much for your assistance and cooperation!

APPENDIX B

Internal Fire Department Survey Results

1. How many years have you been in the fire service? (check one)

5 to 9	(3)	8%
10 to 14	(2)	5%
15 to 19	(7)	18%
20 to 24	(7)	18%
25 or greater	(20)	51%

2. How many years have you been a Fire Captain?

Less than 5	(13)	33%
5 to 9	(8)	20.5%
10 to 14	(7)	18%
15 to 19	(8)	20.5%
20 or greater	(3)	8%

3. Which of the Santa Clara County Fire Department (SCCFD) company officer continuing education (CE) program offerings have you <u>attended</u>?

2007	(35)	90%
2008	(34)	87%
2009	(34)	87%

4. Of the SCCFD company officer CE programs you have attended, please rank them in order of preference, either as a 1, 2 or 3, with 1 being the highest ranking and 3 being the lowest ranking.

#1 - 2007	(17)	44%
#1 - 2008	(6)	15%
#1 - 2009	(16)	41%
#2 - 2007	(12)	32%
#2 - 2008	(13)	34%
#2 - 2009	(13)	34%
#3 - 2007	(6)	23%
#3 - 2008	(15)	58%
#3 - 2009	(5)	19%

Number of offerings attended by respondent:

3 of 3 offerings	(26)	66%
2 of 3 offerings	(12)	31%
1 of 3 offerings	(1)	3%

- "2007 was a good mix of info about MTZ and Cal Fire; 2008 seemed like an over reaction to FOBOR; 2009 was a good mix of topics and efficient use of available time."
- "Strategy and tactics, training records, progressive discipline was the order of this year's preference. Progressive discipline is still a vague class."
- "2008 was #1 because of expert guest speakers; 2009 was #2 because of strategy and tactics and the instructor; 2007 was #3 by default."
- "Strategy and tactics was excellent!"
- "I learned a lot from the simulator exercise. 2007 had a lot of good company officer information."
- "The communications/mutual aid presentation was well presented. Mutual threat zone and County Fire responsibilities were covered thoroughly."
- "Tactics and strategy and personnel issues are things we deal with everyday. This is the reason I ranked the 2009 CE #1."
- "2007 had relevant information; 2008 was confusing because of the instructor (she doesn't understand the job of a firefighter)."
- "2009 progressive discipline felt un-useful; did not fit into how we operate. Made subject less clear. Needs better motivational opening."
- "2008 was very relevant, new changes, timely. 2007 was very good information presented. 2009, progressive discipline, needed review. The tactics and strategy and portion needed improvement."
- "The 2009 class provided good simulator training and discussion."
- "I could take the material back to the station and explain it to my crew."
- "Mutual aid and MTZ continues be controversial; maybe not with our department but with others and that's the point of mutual aid. Any discussion on this topic helps clarify issues."
- "2009 gives a plan for handling problem children documentation. Size up was also a good exercise."
- "Strategy and tactics portion of 2009 program was very well done."
- "The 2009 training ranked higher with me because it covered more subjects."
- 5. Do you feel you have benefited by participating in the SCCFD company officer CE program and are better prepared to do your job?

Yes	(34)	87%
No	(3)	8%
Unsure	(2)	5%

NOTE: Answers provided by respondents:

- "Knowledge replaces fear, all education is good."
- "The more I get, the better I feel."
- "As a new company officer, I have benefited greatly from the company officer CE programs. I would like to see us have them more frequently."
- "It's nice to have the face to face, but much of the material could be given in a different format."
- "Good information, both new and review."
- "Too much review for me."
- "We all can gather something either positive or negative. It also helps to reinforce behavior. 2008 CE in regards to the Firefighter Bill of Rights bringing in people from the outside was the best thing that could have happened."
- "I benefited from 2007 and 2008, but I did not benefit from the 2009 session.
- "I was able to refine/focus/correct my understanding of what is expected of company officers in the latest (2009) class, such as command and training records."
- "Especially the 2009 session."
- "I learn something every time."
- "Mostly it is agency specific and allows me to do my job better."
- "The classes ensure all captains are on the same page."
- "This type of training ensures we are all "on the same page" when it comes to tactics and strategy."
- 6. On a scale of 1 to 10, with <u>1 being the lowest</u> and <u>10 being the highest</u> score, how would you rate the SCCFD company officer CE program to date?

1	(0)	0%
2	(0)	0%
3	(2)	5%
4	(2)	5%
5	(2)	5%
6	(9)	23%
7	(9)	23%
8	(12)	31%
9	(3)	8%
10	(0)	0%

- "Need more often."
- "I rate it a 6 now, but getting better."

7. In your opinion, has the <u>method of delivery/instruction</u> (primarily lecture and discussion, with some manipulative hands-on practice) for each of the sessions been beneficial and/or effective? If no or unsure, what alternative methods of instruction would be beneficial?

Yes	(34)	87%
No	(3)	8%
Unsure	(2)	5%

NOTE: Answers provided by respondents:

- "The method of delivery has been effective. The presenters have been knowledgeable. Hands-on and manipulative, although expensive, would be beneficial. Perhaps funding could be found in the future."
- "More interactive lecture would be beneficial."
- "Kill the lecture. Dial up interaction, role playing, go to locations outside the training center; anything to stimulate recall."
- "Instructor for MTZ/Cal Fire was belligerent and has zero credibility."
- "Hands-on and group simulations with all involved, i.e., multi-company operations with a battalion chief."
- "I would like to see more simulation and role playing."
- "I feel that we (SCCFD) could use web/computer teleconferencing to minimize overtime."
- "Too much lecture. Need interactive, out of the box, training (sand tables, simulators, ICS stuff)."
- "Strategy and tactics is always beneficial and it was done well."
- "I think this method works well."
- "For 2009, the presenter needed to direct the organization's expectations and correct misconceptions. Mediocre tactics and strategy were not corrected as they should have been."
- "Some material may be more scenario friendly but where possible, "hands-on" training or practice was/is always a good adjunct."
- "The 2009 course was the best. Great facilitators and instructors."
- "Videos/pictures are also helpful."
- 8. Please provide up to three (3) subject areas you would you like to see offered in future SCCFD company officer CE programs:

- "I like to see this as an officer CE program; top down, we need to work on emergency response and management issues."
- "Ventilation."
- "Truck company operations."
- "Leadership."

- "Computer and computer systems/application training."
- "ICS forms, strike team forms, Cal Card forms."
- "County Communications tour."
- "Ventilation."
- "Health and safety."
- "Family stress."
- "Effective tour report writing."
- "Mapping, navigation, GPS, topographic maps."
- "S-404 (Safety Officer) class."
- "Truck company operations."
- "Battalion chiefs with captains tactics and strategy and simulator fires, RIC, MPMP and Haz Mat."
- "Strike team deployments: conduct, responsibilities, paperwork."
- "New employee development old school."
- "Getting back to basics: streets, dropping hose, philosophy."
- "Ventilation, rescue, truck operations."
- "High rise operations."
- "Multiple Patient Management Plan."
- "More simulations where more than 1 captain participates, ala Asilomar, with high rise where many people actually talk on radios and participate."
- "NFIRS reporting."
- "Fire investigations."
- "ICS."
- "Personnel issues."
- "Tactics and strategy."
- "Rapid Intervention Crew."
- "Unsure."
- "Type III engine deployment expectations; certifications and qualifications.
- "Offer chief officer classes required for Battalion Chief examination.""
- "Anything new: policies, standard operating guidelines, rules and regulations, etc.
- "Operational stuff."
- "Strategy and tactics: all areas."
- "Instructor training beyond instructor 1A and 1B stuff."
- "Management theory."
- "Getting back to basics I know the focus is on being a good "supervisor," but we have people that can perform or "sound good" in a classroom environment but do now know for example how to "read a wreck" or read what a fire is doing or what the smoke is telling them."
- "Reading smoke class."
- "Hands-on ventilation and auto extrication class (it's nice to be able to give a company a task, but if you don't know the who, what and where or what you are being asked to do, it creates problems. I think this would help the company officers make better decisions."
- "Understanding "age of entitlement" generation."

- "Getting all captains on same page."
- "Getting back to "roots" do your job!"
- "Mutual aid (surrounding agencies)."
- "Creative training (company training)."
- "Emergency scenarios."
- "WMD company officer expectations and requirements."
- "Training documentation and NFIRS uniformity."
- "Type 3 engines new equipment and duties."
- "Planning."
- "History."
- "Innovative thought."
- "Tactics and strategy. Purchase a program and put us all through it."
- "Continue with simulation training."
- "Type III company officer deployment/lessons learned."
- "Truck company expectations."
- "As we have committed more emphasis to Type III deployment, our focus should continue to include wildland response. Strike team station personnel could review strike team deployment lessons learned. Truck company / company officer operations expectations as we all have the possibility to work on a truck."
- "Fire investigation reports."
- "Personnel evaluations."
- "Managing difficult employees."
- "More tactics and strategy."
- "Risk management based decision making."
- "More wildland."
- "Structure size up/scenarios."
- "Mutual aid other than wildland."
- "MCIP issues."
- "Radio use."
- "NFIRS narratives."
- "Company inspections."
- "Firehouse / NFIRS input (consistency)."
- "Highrise."
- "Multiple patient management plan (MCIP)."
- "Safety course, tactics and strategy."
- "Wildland tactics, forms, weather, fuel, interface tactics, radio usage, strike team etiquette, multi-agency responses."
- "Course on importance and benefit of being involved in the organization."
- "High rise training."
- "Completing forms (red packets)."
- "Deployment strategies (Type 3 engines, strike teams, tandem apparatus)."
- "Motivating and managing personnel."
- "Department communication emails, notices and memos, etc."
- "Fire investigation and report writing."

- "More simulations."
- "New training techniques."
- "Keeping the captain and the department out of trouble."
- "Type III usage on wildland events."
- "Table-top for WMD, high-rise and MPMP events."
- "I-zone preplanning."
- "More wildland training."
- "Strategy and tactics there can never be enough of this."
- "Power / utilities / PG & E stuff."
- "Working with Cal Fire (for those of who never worked for them)."
- "Subordinate counseling."
- "Leadership."
- "Safety."
- "MPMP."
- 9. What do you believe are some <u>positive</u> aspects of the SCCFD company officer CE program?

Number answering question = 39Number skipped question = 0

- "Try to get folks on the same page."
- "Team building. Being able to question a knowledgeable presenter. Good take home study materials."
- "Hopefully we are getting standardized training."
- "Interaction with line and staff; role playing; interaction between shift captains.
- "Good lectures important."
- "Communications between officers, how are you doing it?"
- "In-house / inner department instructors."
- "Simulations are always good practice. I'd rather mess up in the classroom than on the fireground."
- "Group dynamics feeding off each others comments and ideas."
- "Getting to see people you haven't seen for a while."
- "I believe the most positive aspect of the officer CE program is we all get on the same page and understand the department's philosophy on different subject matter."
- "Group participation."
- "Sharing of ideas."
- "Being able to see other captains."
- "Review topics with all line officers; keeping consistent with a standard approach."
- "Bringing us together, different shifts, to interact."

- "Discussing expectations with Battalion Chiefs, getting practice sizing things up. Opportunity for group think."
- "The mixing of officers from different shifts and having battalion chiefs in attendance especially during emergency operations training."
- "Team building, understanding issues and that I was not alone."
- "Shared experiences of company officers; fire/emergency scenarios."
- "View new ideas, reinforce tactics and strategy, understand management parameters and needs, gaining knowledge from more experienced personnel."
- "Group effort / thought process."
- "Ego free environment. No one will feel free to communicate or participate if heckling is allowed. A strong instructor is necessary (such as Chiefs Smith or Parker) to maintain class order."
- "The past topics chosen are salient to the day to day operations of the current fire officer. Allows people with specialized knowledge/experience to share with other folks."
- "Defined expectations that all A staff and B staff agree on. I think that really came out in the 2009 sessions, except A10 who needs to be on the same page as the instructors, especially when the instructor is more knowledgeable."
- "Reinforce and present new information in a learning environment."
- "Mingling on all 3 shifts; attending on duty or off."
- "Brings captains together to talk about work issues away from a captains meeting."
- "Pertinent subject matter."
- "Allows changes within the department to be delivered to a captured audience."
- "Ensures consistency among all 3 shifts captains."
- "Team building, joint training, round table, improve communication."
- "Having all captains receiving the same information."
- "That we are all learning the same thing at the same time."
- "Creates more awareness, allows captains that don't take classes to become updated."
- "It gives the individual a barometer for comparing what he currently understands and does to others in the same position."
- "Getting all the company officers together."
- "The subject matter is appropriate and there have been plenty of chances for captains to state their views."
- "Both the strategy & tactics and Cal Fire classes offer a lot of good info."
- 10. What do you believe are some <u>negative</u> aspects of the SCCFD company officer CE program?

Number answering question = 37Number skipped question = 2

- "Cost, time, scheduling."
- "They only happen 8 hours in a 1 year period."
- "Time/Money."
- "Lecture without some other stimulation."
- "Because the training staff and administrative staff are extremely busy, most classes come across rushed and unplanned."
- "Scheduling, could be done online, independently. Look at new delivery methods; does not have to be done in-house."
- "Cost it's expensive to do."
- "Multiple subjects all in one day. Perhaps some type of seminar over a week. I understand cost is a factor."
- "People who say "I think this or that" when they talk about progressive discipline."
- "One negative aspect of the officer CE program is the amount of time that is limited to the program. I would like to see more time committed to this program."
- "Stress of performing amongst peers."
- "Increased cost of overtime."
- "Can reduce the hours. Most material can be covered in half the time.
- "Too much input (running on) from the Battalion Chiefs this is Captain CE! Also, only four days of notice for a mandatory class is not good management!
- "None."
- "The "always being nice" environment. There are times we need to be able to call a person or a poor thought process or performance (with changing a behavior as the priority) call "B.S." on a person whether they are a captain or a battalion chief.
- "Wrong information at times."
- "Each class with the personnel director has been frustrating. Her disconnected sense of how the line operates make most important details confusing. It seems the emphasis is more on liability than teaching skills."
- "Reinforcing mediocre tactics and strategy by not correcting poor choices for fear of hurting feelings. Personal conflicts between people ignoring them."
- "Too large of a group. Shift or battalion size would be beneficial should be quarterly."
- "None."
- "Time between training classes (1 year)."
- "A and B staff not being on the same page, when communicating expectations. I think BC's should assign personnel to sessions rather than first come first serve; also more notice of the CE class (as opposed to just one week), and not having it occur in the summer months (June, July or August)."
- "Subject matter presenters are not subject matter experts they seem to be learning with us. Classroom participation deteriorates into an hour long game of one up man ship!"
- "None that I know of."
- "The Personnel Manager has a lack of knowledge, condescending attitude. One Chief has a condescending attitude."
- "Time off or forced call back to cover staffing."

- "Too much attention to details that use up time. Details can be covered between the BC and their company officers."
- "Cost of program (dollars) to the organization; need more interaction in class."
- "None."
- "Expensive to cover for personnel."
- "None."
- "Sorry, don't have any."
- "Timelines of scheduling."
- "This last one (2009) came out without much lead time at all, which made it difficult for captains to find coverage, resulting in several "forces."
- "The instructor for progressive discipline did a poor job. Her focus was on laws when it should have been on counseling techniques. It would have been better to have someone who specializes in teaching the fire service give the class."
- "None."

11. What is your <u>overall impression</u> of the SCCFD company officer CE program?

Number answering question = 39Number skipped question = 0

- "Need to look at return on investment; for the cost, little change in behavior."
- "It's a good first step in the right direction. Would improve if offered/required every six months."
- "Was very good this year (2009), hope it continues!"
- "Great idea, good execution, go to the next level."
- "A valiant futile attempt to do the right thing from a department that consistently overburdens itself."
- "Good."
- "Good continue the program."
- "Excellent! Will help me grow as an officer!"
- "I like it. I know it's difficult to get everyone together, but good topics are worth covering."
- "Any training is good training."
- "Good."
- "I really am impressed with the topics covered and the level of knowledge of the instructors. Class participation is always encouraged.
- "Positive, helpful!"
- "It's a good idea. What about the thought of CE for engineers as well?" Paramedics have updates/CE."
- "It's beneficial to all line officers, both new and old."
- "Weak!"
- "All good. Some of the topics are necessary to discuss but not enjoyable (Firefighter's Bill of Rights). If it was always fun they wouldn't pay us."

- "I think it's a good program and could be even better implementing my suggestions!"
- "To help the organization get on the same page, by relieving stress and confusion, it would help if we could get all the battalion chiefs on the same page. In addressing the "we do it this way on my shift" – I would put these in the "power/ego" driven category. Trying to remember each little "non-essential" way of doing something that each Battalion Chief likes, creates confusion, stress and animosity (I understand in saving this, there are a lot of gray areas in this category). My suggestion would be: at an Operations meeting, talk about things...like who picks up the Firefighter from the hospital – do they just need to advise the BC, etc. Also, on a chronic alarm, does the BC trust the Captain's decision to cancel the response (except for one unit), or do you have to check with the BC. I had a talking to from a BC who stated "you don't make that decision...you ask me." I know from your time here you can probably think of many more examples on "non-essential" idiosyncrasies that people have that fall into this category. When a person promotes, they need to understand that they don't automatically get respect by the color of their badge. It is a combination of the rank and how you conduct yourself as a person (I think that statement is pretty obvious to most people), but to some it appears that it is not."
- "Good start need more!"
- "Very good. I like how we have used our own strong employees to teach/share (Parker, Salazar, Stocks). We need to encourage more participation of all the officers."
- "I believe it is a good program that should continue. More management/line input is needed and consistency at the Battalion Chief level is needed."
- "Great!"
- "Good."
- "Given the amount of information/knowledge we are held accountable for, it is not practical to assume 8 hours per year could meet all expectations. However, based on the time allotted, the instruction was focused and well presented."
- "Overall it is a good progressive concept. I'm not sure that it would be realistic schedule wise to try and run two a year (8 hours each). I appreciate the effort of all those involved in the presentation of the information."
- "I think all in all it has been beneficial; you get out of it what you put into it both the instructor and the student."
- "Information is valuable and needs to be presented. Format needs more control. Some presenters need to be coached better before class."
- "Overall a B +."
- "Work in progress. In it's infancy and should get better with time and with input."
- "I feel the cost/benefit is relatively low. This should be accomplished by a closer relationship between BC's and company officers. There needs to be much more frequent contact from the BC's at the station level."
- "Very beneficial."
- "Good program; we really need to work on getting a better program for chief officer promotionals. The current promotional program is not working. We have

- good people who have no interest in moving up in the organization (task books, courses in-house, on the job training, open up the captain spots at Los Gatos and Cupertino to assisting in mentoring)."
- "I feel the program is very beneficial. I liked how each class had people from the different shifts."
- "It has been needed for a long time. "Good!"
- "It's a great concept. We have a lot of talent in this department and the program gives those individuals a chance to contribute to the development of the rest of the staff."
- "It's good."
- "Intentions = great. Execution = pretty good. Potential = no limit (except cost)."
- "The program has offered a good exchange of ideas. However, I think focus needs to be on standardizing practices within the department."